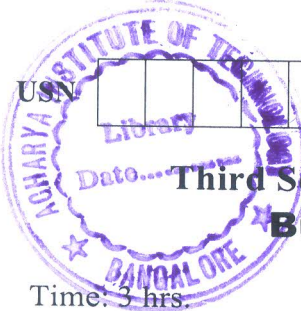


# CBCS SCHEME



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18CV34

Third Semester B.E. Degree Examination, Aug./Sept.2020

## Building Materials and Construction

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Write the requirements of good building stones. Explain the factors causing deterioration of stone work and preservation of stone work. (10 Marks)
- b. Explain briefly the tests conducted on bricks. (10 Marks)

OR

- 2 a. Explain the importance of size, shape and texture of coarse aggregates. (10 Marks)
- b. Explain bulking with reference to fine aggregates with its importance and how the test for bulking is done. (10 Marks)

### Module-2

- 3 a. Explain briefly the essential requirement of good foundation. (10 Marks)
- b. Explain with sketches the following types of foundation :
  - (i) Combined footing
  - (ii) Strap beam footing. (10 Marks)

OR

- 4 a. Explain with sketches the features of English bond and Flemish bond in brick masonry, with their merits and demerits. (10 Marks)
- b. Explain briefly following types of walls:
  - (i) Load bearing wall
  - (ii) Partition wall
  - (iii) Cavity wall. (10 Marks)

### Module-3

- 5 a. Explain various modes failures of an arch. (10 Marks)
- b. Define Lintel. Draw a neat sketch of an R.C.C. lintel with chejja indicating the positions of reinforcements. (10 Marks)

OR

- 6 a. Explain the factors which contribute in selection of flooring materials. (10 Marks)
- b. Draw a neat sketch of a kind post truss indicating various elements. (10 Marks)

### Module-4

- 7 a. Explain briefly the guidelines to be followed while locating doors and windows. (10 Marks)
- b. Explain with neat sketches the following :
  - (i) Corner window
  - (ii) Bay window (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 8 a. Plan a doglegged stair for a building in which vertical distance between the floors is 3.6m. The stair room measures 3m × 5m (internal dimensions). (10 Marks)
- b. Write short notes on :
- (i) Shoring
  - (ii) Under pinning
- (10 Marks)

**Module-5**

- 9 a. Mention the objectives of plastering? Explain the requirements of good plaster and defects in plastering. (10 Marks)
- b. What are the causes of dampness? Explain any one method of damp proofing. (10 Marks)

OR

- 10 a. Mention the objectives of painting and point out the characteristics of an ideal paint. (10 Marks)
- b. Explain the procedure for :
- (i) Painting on new wood work
  - (ii) Painting on new iron work and steel work.
- (10 Marks)

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